



State of Utah

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Lieutenant Governor

Utah Department of Health

David N. Sundwall, M.D.
Executive Director

Office of the Medical Examiner

Todd C. Grey, M.D.
Chief Medical Examiner

May 9, 2008

Representative Jen Seelig
986 West Sterling Drive
Salt Lake City, Utah 84097

Dear Representative Seelig,

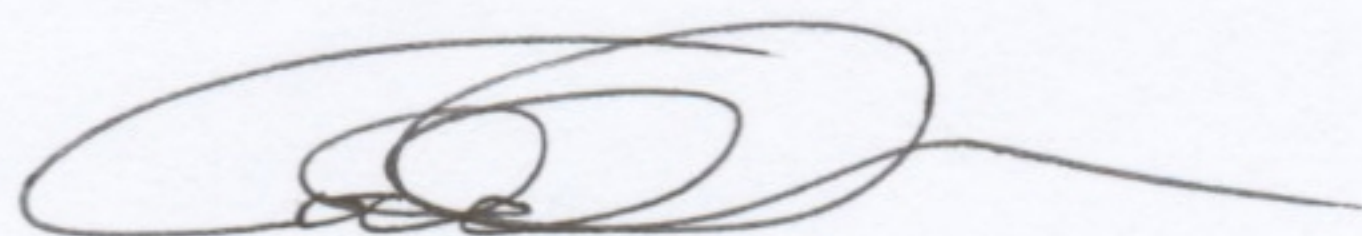
I am writing in support of your effort to include strangulation and suffocation as parts of the definition of aggravated assault.

Strangulation, either manual or with a ligature, is a life threatening action. It is a common misperception that strangulation causes injury as a result of interfering with breathing and that it takes a prolonged period to injure or kill. This is not the case. Victims of strangulation are injured or killed as a consequence of the interruption of cerebral blood flow. Occlusion of the airways plays a minor, if any, role. It is estimated that it takes about 4 lbs of pressure to occlude the jugular veins and 11 lbs to occlude the carotid arteries. With complete occlusion of the carotids, a victim can lose consciousness in as little as 10 seconds. With more prolonged occlusion, brain damage can ensure in as little as 30 seconds and death within a minute or two. Suffocation (occlusion of the airway) may lead to a significant decrease in cardiac output in as little as 30 seconds and brain injury in as little as 90 seconds.

While bruising and scraping on the neck are strong evidence of strangulation, external marks may be minimal or even entirely absent. (An example would be a victim of a choke hold where pressure is applied over a relatively wide area on both sides of the neck by the assailant's arm and forearm). Petechiae (pinpoint hemorrhages) of the whites of the eyes, inner surfaces of the eyelids and/or skin of the face, along with facial congestion, are commonly seen in victims of lethal strangulation, but may not be seen in surviving victims, even those who have suffered loss of consciousness. Victims of suffocation often have no external findings at all. Petechiae are almost never seen in suffocation victims. What this means is that even if there are no visible marks or other external findings it does not mean the victim has not suffered a potentially lethal assault. It also means that while the credibility of the victim's report may become an issue at trial, investigators should not dismiss the allegation simply because they can't see any evidence of injury on the victim externally.

I hope these comments are helpful in your efforts. Please let me know if there is anything else I can do to assist you.

Sincerely,

A handwritten signature in dark ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Todd C. Grey, MD